

## METHODS AND APPARATUS FOR CONTROLLING ACCESS TO A RESOURCE

### ABSTRACT OF THE DISCLOSURE

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A system provides an flexible authorization system providing robust access control to resources in a computing system environment. The authorization system is typically embodied within a computer system configured to provide access control to one or more resources, such as a data storage resource. The computer system can include an input/output interface, a processor, a memory system encoded with an authorization program, one or more authorization databases and an interconnection mechanism coupling the processor, the input/output interface, the memory system, and the authorization databases. In operation, the input/output interface receives an access request from a requestor and the processor performs the authorization program in the memory system to select, based on the access request, a selected set of rules containing at least one rule from at least one master set of rules maintained within the authorization database(s). Rules can be selected in this manner using filter operations so that all rules in the rule set need not be processed. The processor further performs at least one rule operation based on the selected set of rules to produce an access control decision in the memory system until either a rule operation including a disregard instruction is performed to limit performance of rule operations in the selected set of rules or until all rule operations in the selected set of rules that are applicable to the access control decision are performed. Since rules can include disregard instructions, processing may perform less than all rule operations from the selected set of rules. This allows an administrator to create an access control system that applies only a subset of rule operations from the selected set of rules that appear to be applicable to the access control decision based on one or more initially applied filter operations. The system allows an administrator to create rules that can define unique roles, types of access and permissions to precisely control access to a resource.